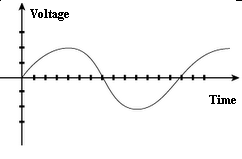
**PLC APPLICATIONS**

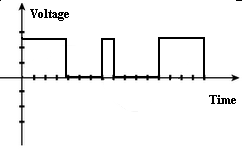
**MODULE 4**

**WORKSHEET 3**

1. Electrical signals can be classified into analog signals and digital signals.
2. An analog signal is that varies continuously, While a digital signal has discrete levels.
3. Name the following signals:



**ANALOG SIGNAL**

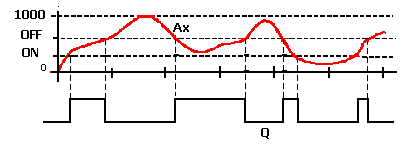


**DIGITAL SIGNAL**

1. The LOGO! 12/24RC is equipped with the inputs I7 and I8, which can also be programmed as analog inputs (AI1 and AI2).
2. The physical quantities (e.g. temperature, pressure, speed etc.) can be converted into electrical quantities. This conversion is performed by an external sensor.
3. The following formula can be used to obtain the value of the required resistor:
4. What is Analog threshold trigger?

# The output of this programming block is set or reset depending on two configurable thresholds; one is ON threshold the other is OFF threshold.

1. Name the device for the following diagram:



**ANALOG THRESHOLD TRIGGER**

1. Analog threshold triggers are used in air conditioning systems.
2. What is an analog comparator?

Analog comparator is used to compare between two analog signals.

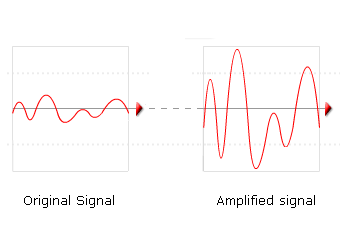
The output of this programming block is set and reset depending on the difference between those two signals (Ax – Ay) .

1. What is analog amplifier?

Analog amplifier is used to amplify an analog input signal.

The output of this programming block is an amplified version of the input signal.

1. Name the input and output signals for the following diagram.



**INPUT SIGNAL**

**OUTPUT SIGNAL**